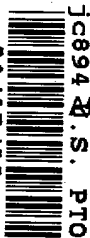


09-27-00  
UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

09/25/00



Attorney Docket No.: 3367-8

Inventors: Sheldon F. Goldberg of 3360 E. Serene, Henderson, Nevada 89014  
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Express Mail Label No.: EK 888037472 US

Title: GEOGRAPHICALLY CONSTRAINED NETWORK SERVICES



Assistant Commissioner for Patents

Box Patent Application

Washington, DC 20231

This application claims priority from U.S. Provisional Patent Application No. 60/144,350 filed July 16, 1999. The entire disclosure of the provisional application is considered to be part of the disclosure of the accompanying application and is hereby incorporated by reference. Enclosed for filing with the above-identified utility patent application, please find the following:

1. ☒ Specification (Total Pages of Text, including Abstract and Claims: 11 )  
2. ☒ Drawing(s) (35 USC 113) (Total Sheets: 3 ) ☐ FORMAL ☒ INFORMAL  
3. ☒ Oath or Declaration (Total Pages: ) ☒ Signed ☐ Unsigned  
4. ☐ Assignment Papers (cover sheet & document(s))  
5. ☐ 37 CFR 3.73(b) Statement (when there is an assignee)  
6. ☒ Return Postcard (MPEP 503) (should be specifically itemized)  
7. ☐ Small Entity Statement(s)  
8. ☒ A check in the amount of \$345.00 is enclosed.  
9. ☐ Other:

## FEE CALCULATION:

	(COL. 1) NO. FILED			(COL. 2*) NO. EXTRA		SMALL ENTITY			LARGE ENTITY	
						RATE	FEE		RATE	FEE
BASIC FEE:							\$345.00	OR		\$690.00
TOTAL CLAIMS:	2	-	2		0	X \$9 =	\$0.00	OR	X \$18 =	
INDEP. CLAIMS:	1	-	1		0	X \$39 =	\$0.00	OR	X \$78 =	
MULTIPLE DEPENDENT CLAIMS						+ \$130 =	\$0.00	OR	+ \$260 =	
*IF THE DIFFERENCE IN COL. 2 IS LESS THAN ZERO, ENTER "0" IN COL. 2.						TOTAL:	\$345.00			

## OTHER INFORMATION:

1. ☒ The Small Entity Statement was filed in prior application. This status is still proper and desired.  
2. Correspondence Address: Sheldon F. Goldberg, 3360 E. Serene, Henderson, Nevada 89014

Respectfully Submitted,

Date: Sept 25, 2K

# GEOGRAPHICALLY CONSTRAINED NETWORK SERVICES

## RELATED FIELD OF THE INVENTION

The present invention relates to verifying geographic locations of users on a communications network, e.g., for determining whether to provide a product or service to such users, and in particular, the present invention is useful for determining whether a product or service can be legitimately provided to an Internet user by determining the Internet user's geographic location when the product or service is requested.

## BACKGROUND

Geographically extensive communication networks such as the Internet are substantially viewed as being geographicless in the sense that such networks extend across substantially all national and all local country, state, and political boundaries. Accordingly, it has been difficult to monitor and/or provide certain services on networks, such as the Internet, due to the network not having sufficient capability for respecting such boundaries. Moreover, while legal statutes may cause certain network sites to be restricted in their network services due to the site's geographical location being within the jurisdiction for such statutes, other network sites outside of the area to which the statutes apply may have an unfair advantage in that the prohibited services can be offered to substantially all network users from such latter network sites. In particular, the above described general scenario applies to gambling on the Internet in that, e.g., Internet sites within the United States are prohibited, in general, from offering wagering on games such as blackjack, poker, pia gow, craps and roulette due to gambling restrictions in various U.S. states and/or counties or other legal jurisdictions.

Additionally, other communication network services are also either not available or not appropriately restricted due to the lack of being able to locate and/or verify the

locations of network users. In particular, certain software products have been determined by various governments to be restricted in their dissemination across national boundaries. Accordingly, if network users could have their locations verified, then such restrictions in the downloading of software from the Internet could be better enforced. Additionally, by verifying a location of a network user, network services could be effectively taxed according to the user's location when purchasing a network service such as the downloading of software via the Internet.

Moreover, by verifying a network user's location, a network site in communication with the user may be able to adapt its services and/or display to present to the user relevant information and services related to a geographical area within which the user is determined to be located. For example, an Internet website can utilize a verification of a user's location for selecting or prioritizing: (a) a list of additional websites offering services that are available near the user's location, and/or (b) advertising of services or products locally available to the user. Note that the verification (or more precise determination) of a user's location in the present context may be particularly important for wireless Internet users who are traveling and/or who do not know their current location. For example, providing such an Internet website for the travel industry, allows a user to access the website from different locations (via, e.g., different hotel Internet connections, or via a mobile wireless Internet connection), and subsequently select locally related advertising and other local information such as locally preferred restaurants, locations of scenic sites, a listing of local events, etc. based on the

user's location and optionally the date and time (as contemplated by the present invention).

Accordingly, it would be desirable to have a network based capability for geographically verifying and/or more precisely determining the location of network users for allowing, restricting, and/or selecting network services according to each user's location.

### SUMMARY

The present invention is a method and system for determining or verifying the geographic location of a user while the user is communicating on a communications network such as the Internet. The user's location can be straightforwardly determined by a provider of a product or service requested by the user during network communications between the user and the provider. Thus, the user's location can be determined at the time the service or product is requested by the provider.

In one embodiment of the present invention, to determine the location of the user's network station (and thus locating the user), the provider: (a) receives the user's phone number (or other identification for contacting the user's station), and (b) supplies the user's station with a distinctive identifier. Additionally, the provider supplies a location determining service with the user's phone number (or other identification) requesting that the location determining service determine the location of the network station having the phone number. Moreover, a phone call is made to the phone number for retrieving the distinctive identifier from the network station having the phone

number. If the distinctive identifier is retrieved and the location determining service indicates that the user's station is within an appropriate geographical area (or not within an inappropriate area), then the provider can provide the requested product or service to the user.

Thus the present invention is a location determining service for verifying, or more precisely determining, the location of users on a communications network such as the Internet. In particular, embodiments of the network based location system of the present invention combine network (e.g, Internet) services with telephony location services that are available for locating telephone users. In particular, such user location capabilities are widely used for emergency services such as 911. Moreover, enhancements in location technologies have extended the traditional landline based location services to also include users on wireless devices such as cellular or wireless telephones.

Thus, it is an aspect of the present invention, as related to the Internet, to combine: (a) Internet communications between, e.g., a website and a user with (b) additional telephony based communications between the website and the user for verifying the location of the user prior to providing and/or selecting the services that the website offers to the Internet user. In particular, the present invention transmits a unique identifier to an Internet user whose location is to be verified, and subsequently causes the Internet user to place a conventional telephony call to a predetermined phone number for transmitting the identification (provided in the initial Internet transmission to the Internet user). Subsequently, upon picking up the call placed by the Internet user to the predetermined number, the callee (e.g., the website) captures both the Internet user's

telephone number and the transmitted identification. The transmitted identification is used to retrieve previously stored information about the Internet user, and in particular, a user's previously input general geographical location (e.g., the country, state or city within which the user has indicated he/she is located), and associate the user information with the Internet user's captured phone number.

Subsequently, the user's general location is used to identify a telephony location providing service having coverage for the user specified general geographical area of the Internet user for thereby determining or verifying a relatively precise location of the user, and providing this information to the website so that appropriate services can be selected for providing to the Internet user.

Other features and benefits of the present invention will become evident from the accompanying drawings and the detailed description herein below.

#### BRIEF DESCRIPTION OF DRAWINGS

Figure 1 is a block diagram showing the high level components used in an embodiment of the present invention wherein the communications network is, for example, the Internet.

Figures 2A and 2B provide a flowchart of the high level steps performed at a network service site (e.g., an Internet website), and at a user's network station for verifying the location of the user.

#### DETAILED DESCRIPTION

Figure 1 shows a high level diagram of the components used in an embodiment of the present invention. Accordingly, a communications network 10, such as the Internet, is used for providing network based services between a network service site 14 and one or more network user stations 18 whose locations are desired to be verified (or determined) one or more times by the network service site 14. Additionally, one or more telephony location service providers 22 are in communication with the network site 14, via one or more public switched telephone networks 26, wherein the network service site 14 provides the telephone numbers of users (at their stations 18) who are to have their locations determined. Accordingly, the telephony location service providers 22 respond with locations of the network users. Note that such telephony location service providers 22 are currently available for providing the location of telephony subscribers for emergency services such as 911. Moreover, various technologies have been developed for also verifying the location of users on cellular or wireless phones such as global positioning location technologies, time difference of arrival triangulation technologies, angle of arrival technologies, and multipath pattern matching technologies for wireless signals as one skilled in the art will understand. Moreover, as one skilled in the art will also understand, the automatic location identification (ALI) currently used for emergency 911 services can also be used for providing location services to other location requesters such as the network service site 14.

The network service site 14 also accesses a database 30 of telephony location service providers 22, wherein the database associates each location service provider with their corresponding geographical coverage area for providing locations of users. This

database is used to select an appropriate location service provider 22 given the general area which in the network user has indicated he/she is located. Additionally, the network service site 14 also accesses a database 34 having any geographical constraints to be applied during service activation with a user once the user's location has been verified (e.g., gambling wagering limitations according to the user's location). Moreover, note that in addition to geographical constraints, the database 34 may also include geographically associated advertising and additional information to provide to the user depending upon the user's verified location.

A general high level flowchart illustrating the steps performed by the present invention is provided in the flowchart of Figures 2A and 2B. Note that this flowchart describes the steps performed when a network user request a particular service. However, as one skilled in the art will understand, similar a flowchart can be provided for substantially unrequested services as advertising of locally available products and/or services.

The foregoing discussion of the invention has been presented for purposes of illustration and description. Further, the description is not intended to limit the invention to the form disclosed herein. Consequently, variations and modifications commensurate with the above teachings, and within the skill and knowledge of the relevant art, are within the scope of the present invention. The embodiments described hereinabove are further intended to explain the best mode presently known of practicing the invention and to enable others skilled in the art to utilize the invention as such, or in other embodiments, and with the various modifications required by their particular application



or uses of the invention. It is intended that the appended claims be construed to include alternative embodiments to the extent permitted by the prior art.

## CLAIMS

### What is claimed is:

1. A method for determining the location of a user requesting services from a network site of a communications network, comprising:

receiving, at the network site, user information for identifying the user, and a first approximate location of the user;

5 determining, using the first approximate location of the user, a location service provider providing coverage for the first approximate user location;

causing the user's network station to call a predetermined telephone number for identifying the user;

10 receiving the user's call at the predetermined telephone number, and: (a) capturing the user's telephone number, and (b) obtaining identification information for identifying the user;

transmitting the user's telephone number to one of the telephony location service providers selected for determining a location of the user;

15 receiving from the selected telephony location service provider, a more precise location of the user; and

determining services to be provided to the user on the communications network according to the more precise location.

2. The method as claimed in claim 1, wherein the services for providing to  
20 the user includes one or more of: gambling services, taxation services, services for the  
distribution of software, advertising presentations, and information related to locations  
within the user's local that the user is expected to find of interest.

## ABSTRACT

25           A method and system are disclosed for determining or verifying the geographic  
location of a user while communicating on a communications network such as the  
Internet. The user's location can be straightforwardly determined by a provider of a  
product or service during network communications between the user and the provider.  
Thus, the user's location can be determined at the time the service or product is  
30           requested by the provider. In one embodiment, to determine the location of the user's  
network station, the provider: (a) receives the user's phone number (or other  
identification for contacting the user's station), and (b) supplies the user's station with a  
distinctive identifier. Additionally, the provider supplies a location determining service  
with the user's phone number (or other identification) requesting that the location  
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distinctive identifier from the network station having the phone number. If the  
distinctive identifier is retrieved and the location determining service indicates that the  
user's station is within an appropriate geographical area (or not within an inappropriate  
40           area), then the provider can provide the requested product or service to the user.

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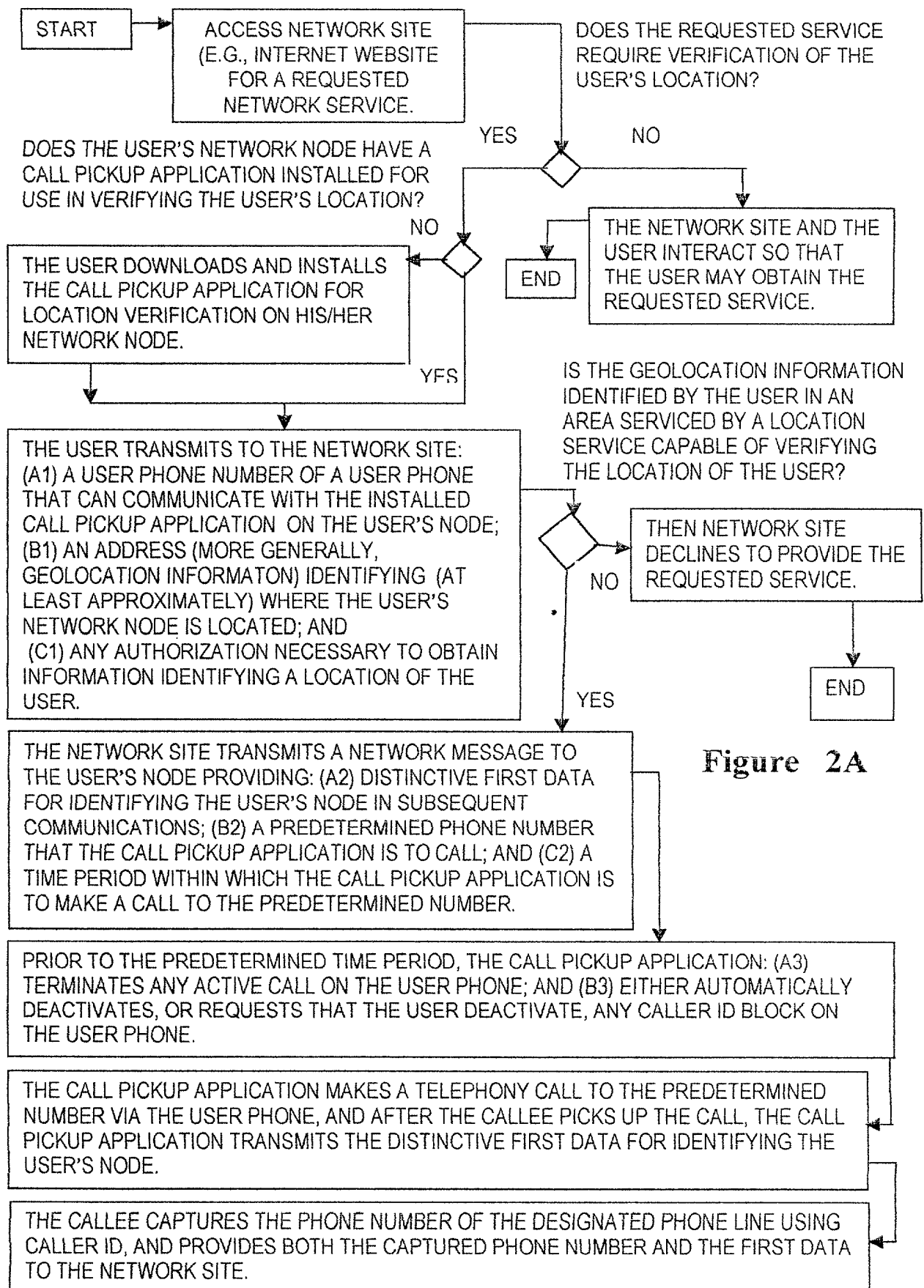
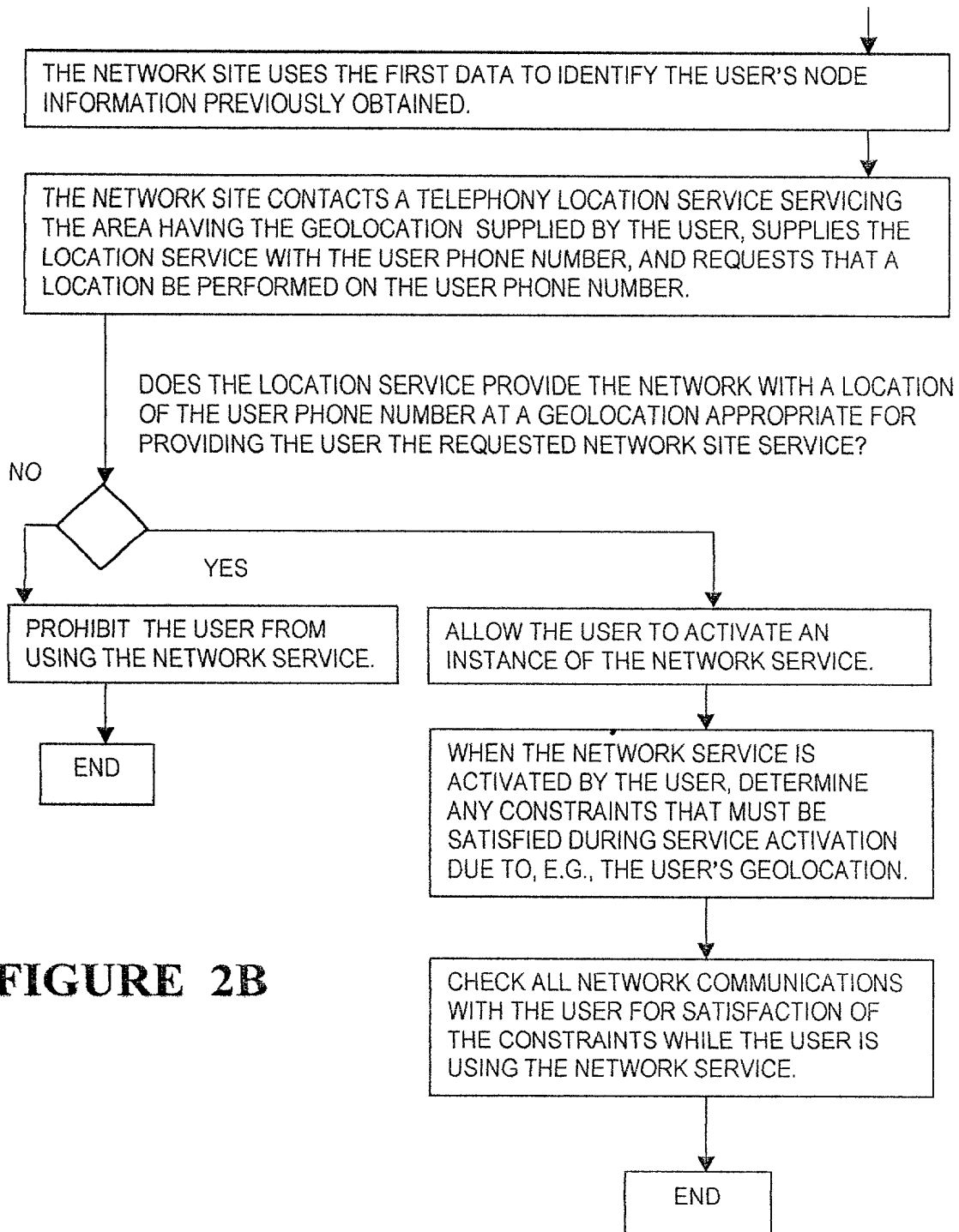


Figure 2A



**FIGURE 2B**

RULE 63 (37 CFR § 1.63)  
DECLARATION  
FOR PATENT APPLICATION  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "GEOGRAPHICALLY CONSTRAINED NETWORK SERVICES", the specification of which is identified as Attorney File No. 3367-8PROV and attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability in accordance with 37 CFR 1.56(a) and (b) as set forth on the attached sheet indicated Page 3 hereof and which I have read.

I hereby claim priority benefits under 35 U.S.C. 119(e) of any provisional application(s) for patent listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in such prior applications in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information material to patentability in accordance with 37 CFR 1.56(a) and (b) which occurred between the filing date(s) of the prior application(s) and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status</u>
60/156,066	September 24, 1999	Pending

I hereby claim the benefit under 35 U.S.C. 120/365 of all United States and PCT international applications listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in such prior applications in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information material to patentability in accordance with 37 CFR 1.56(a) and (b) which occurred between the filing date(s) of the prior application(s) and the national or PCT international filing date of this application:

<u>Application Serial No.</u>	<u>Filing Date</u>	<u>Status: patented, pending, abandoned</u>
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



(1) Inventor's Signature  Date Sept. 25, 2000

Inventor's Name (typed): Sheldon F. Goldberg

Citizenship: UNITED STATES OF AMERICA

Residence: 3360 E. Serene, Henderson, Nevada 89014

Post Office Address\*: Same as Residence

\*Complete Post Office Address in full if different from Residence, otherwise indicate that the Post Office Address is "Same as Residence."

37 CFR §1.56(a) and (b)  
DUTY TO DISCLOSE INFORMATION MATERIAL  
TO PATENTABILITY

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of a patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.\*

\*Note, 37 CFR §1.97(h) states: "The filing of an information disclosure statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56(b)."

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DECLARATION  
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As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "GEOGRAPHICALLY CONSTRAINED NETWORK SERVICES", the specification of which is identified as Attorney File No. 3367-8PROV and attached hereto.

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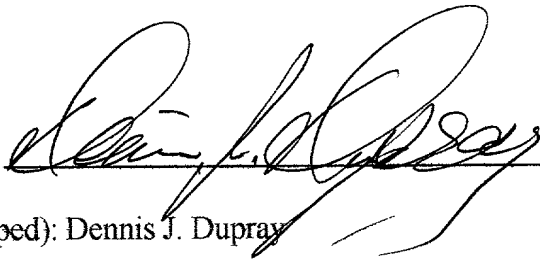
I hereby claim the benefit under 35 U.S.C. 120/365 of all United States and PCT international applications listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in such prior applications in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information material to patentability in accordance with 37 CFR 1.56(a) and (b) which occurred between the filing date(s) of the prior application(s) and the national or PCT international filing date of this application:

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(1)

Inventor's Signature



Date Sept. 25, 2000

Inventor's Name (typed): Dennis J. Dupray

Citizenship: UNITED STATES OF AMERICA

Residence: 1801 Belvedere Street, Golden, Colorado 80401

Post Office Address\*:

Same as Residence

\*Complete Post Office Address in full if different from Residence, otherwise indicate that the Post Office Address is "Same as Residence."

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